



EASE PROJECT LEARNING PRESENTATION

CEMT Company Ltd
By Lusungu Kumwenda
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Presentation summary

- ❖ Project Progress and Results
- ❖ Key Learning with respect to scaling up & deploying more grid
- ❖ Registration with MERA/NCIC
- ❖ Minigrid Performance against expectations & future deployment
- ❖ Electricity sale
- ❖ Energy Sold
- ❖ Detail Design & Grid Expansion
- ❖ Barriers Experience in additional development's



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- ❖ CEM in conjunction with CES are implementing a 80 KWP Solar PV Min Grid Project in Sitolo Village, Mchinji District.
- ❖ Community Energy Scotland (CES) and Community Energy Malawi (CEM) secured further funding in late 2017, from the Scottish Government's Climate Justice Innovation Fund (CJIF).
- ❖ This was for capacity building in the local community to develop a sustainable mini-grid management system and business model that would ensure long-term viability and success of the installed solar mini-grid.
- ❖ Building community resilience, and strengthening local agriculture and local enterprise through a sustainable solar powered mini-grid initiative
- ❖ The project is funded by UNDP through GoM and aimed at Increasing Access to Clean and Affordable Decentralized Energy Services in Selected Vulnerable Areas of Malawi.



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Key Learning with respect to scaling up & deploying more grid

- ❖ Community Energy Malawi Build –Own and operate Sitolo mini-grid infrastructure and act as the liaison with government and regulatory bodies in relation to compliance.
- ❖ The proposition was that a sustainable electricity mini-grid system needs several key elements for instance a well built and maintained energy generation, energy storage and distribution infrastructure;
 - A sustainable financial business model with sufficient to cover operational, maintenance and repair costs as well as resources to expand the network in future;
 - Sufficiently training local personnel able to carry out basic maintenance.



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Trained local power lines men & Electricians with funding from SG-CJIF Project



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MERA& NCIC REGISTRATION

- ❖ Households & Grid Installation Inspection Technical Report was shared with MERA
- ❖ CEM –Sitolo 80KWP PV power Plant has registration certificate for min grid Electricity (Generation and Distribution) was issued in 2020 with MERA
- ❖ CEMT Ltd is certified by MERA and Registered with NCIC
- ❖ MWK 50,000.00 has been paid as Registration fee
- ❖ Sitolo Minigrid was commissioned on 24th December 2019



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Power purchase agreement (PPA)

- ❖ CEMT Ltd signed power purchase with Village Electricity Committee(VEC)
- ❖ Operations and maintenance to be done by CEMT Ltd on behalf of community
- ❖ Finances to be managed by CEMT Ltd
- ❖ Tariffs Review will be based on automatic tariff adjustment formula(ATAF)
- ❖ New Tariffs to be shared with VEC
- ❖ Connection fee for a customers-MWK20000:00



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Installed Generation Capacity

- ❖ 80kwp Pv Sitolo minigrid Generation capacity
- ❖ Maximum peak power demand -5kw
- ❖ Only 155households are connected
- ❖ One primary school is connected
- ❖ One maize mill with 7.5 kw motor
- ❖ Two churches
- ❖ Two barber shops are connected



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Electricity Sale

CEM T tariffs Categories :

- ❖ Household Tariffs- US\$ 0.18
- ❖ Business Tariffs- US\$0.19
- ❖ Social Tariffs – US\$ 0.09



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Site administration

- ❖ CEMT Ltd Trained local staffs to operate the vending unit
- ❖ Token is generated at our site office



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Grid Expansion

- ❖ Detail Design was done by CEMT Ltd /Ministry of Energy
- ❖ Grid has been extended to Molosiyo and Ndawambe village
- ❖ 720 HHs have been wired out of 930 HHs to be connected
- ❖ 7km 33KV High voltage line has been constructed
- ❖ Medium voltage lines have been constructed

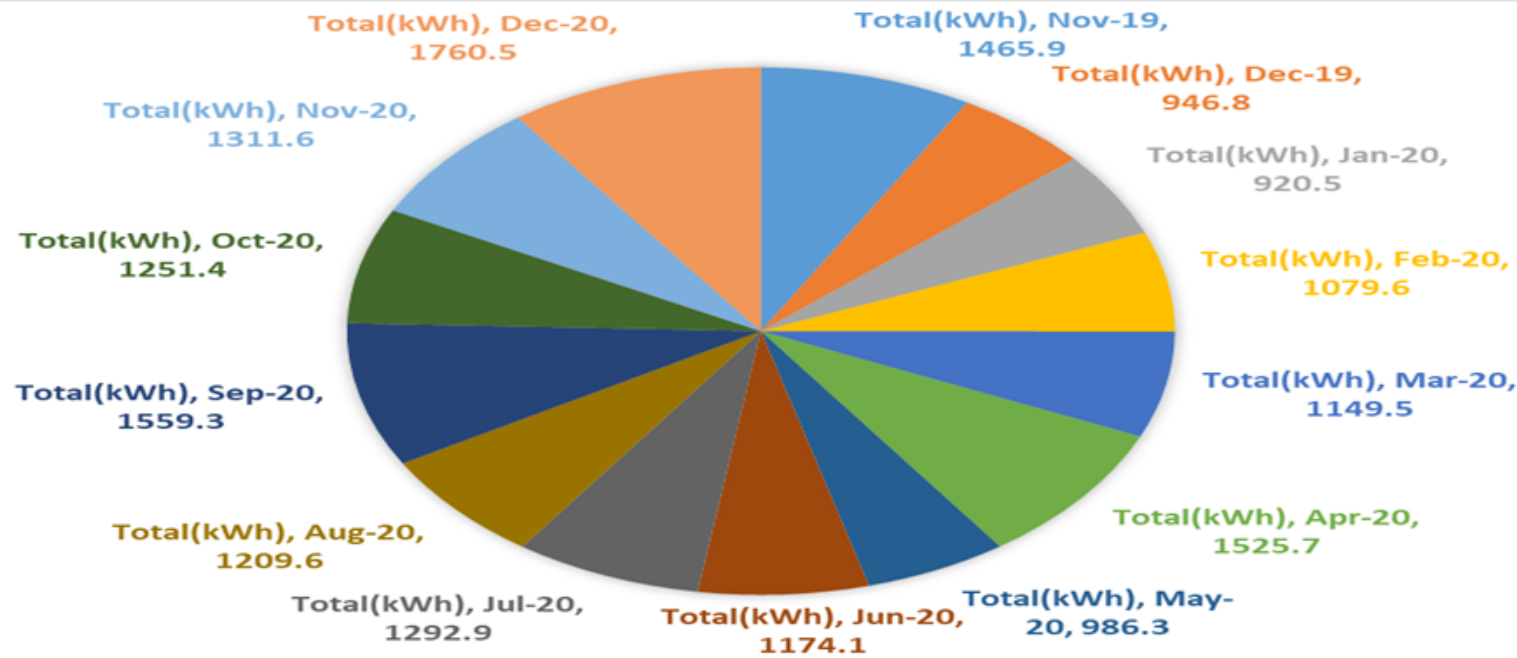


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Energy Sold between 2019-2020

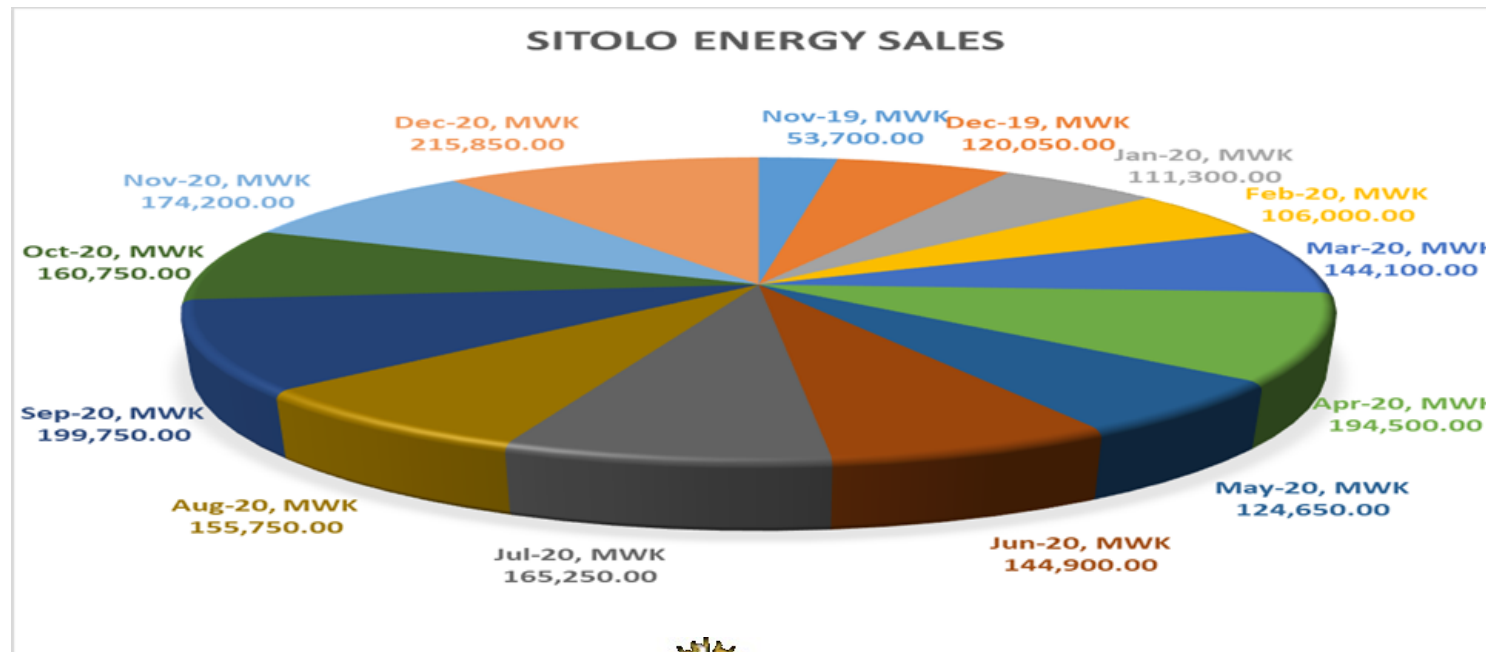


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Electricity sold between 2019-2020



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Challenges

- ❖ Tariffs are much lower compare to other countries
- ❖ Lack of funding –No access for funding from Rural Electrification Fund agency
- ❖ Lack of technical know how
- ❖ System being Under utilised



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Thanks for your attention



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